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INTERPRETATION OF DATA

Two basic methods of getting data for evaluation are (1) asking people and (2) observing people. Asking people is usually done by means of interviewing, mailed questionnaires, or tests. Observing people is usually done by observing their behavior or the results of their behavior.

Observing people's behavior is observing what they do or what they say. The results of behavior are the products made or things done such as practices adopted, food canned, community accomplishments, etc. People's behavior is also often recorded in other ways such as books, libraries, files, old manuscripts, letters, etc.

Much of our informal - everyday evaluations are made on the basis of observing people. Hence this paper will confine itself to errors of observation and interpretation and how to avoid them, realizing that the same principles hold for research studies.

Observations

An observation is that which a person makes through one or more of the five senses. Through the senses of sight, hearing, taste, smell and touch a person obtains information.

The information may or may not have meaning to the observer. Usually it does have meaning but is partially what the observer supplies because of his background of experience.

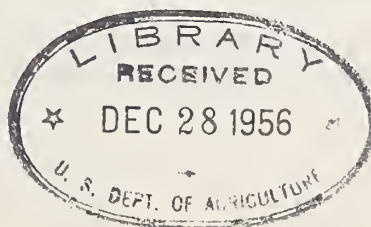
Hence, evaluation through observation is open to two main kinds of errors -- (1) errors due to inaccuracy of observation and (2) errors due to interpretation by the observer.

Errors in Observation

It is a well known fact that people make errors of observation. Time and again it has been shown that persons having fleeting glimpses of behavior or during the excitement of the moment have made sworn statements of what they saw or heard only to have been proven positively wrong by further evidence.

It is difficult for people to identify and remember many specifics about a situation even when they have considerable time to do so. Training in identifying characteristics to look for in a situation aids in this process.

Prepared by Fred P. Frutchey, Division of Extension Research and Training,
for use in Extension Evaluation Course, Regional Extension Summer School,
University of Arkansas, 1955.



Errors of Interpretation

When an observer makes an interpretation he usually supplies from his experience further information, not in the direct observation, and consciously or unconsciously assumes that information to be true. If not true, errors of interpretation are introduced.

For example when an observation is made of a person's behavior or of the results of behavior, the following assumptions are often made.

1. That the behavior really is evidence of the kind of behavior the observer is looking for and that he can identify the behavior he is looking for.
2. That the behavior observed was typical of the person's behavior and not an isolated nor unusual instance.
3. That the behavior was not due to any other cause except the one attributed to it by the observer's interpretation.
4. That the observer did not read into the observation what he hoped to find (wishful thinking).
5. That the person was not merely trying to impress the observer.
6. That the behavior was not due simply to politeness or courtesy.
7. That the behavior was a free expression of himself and not forced upon him.
8. That the result of behavior observed was the person's own work and not that of others.

How to Avoid Errors of Observation and Interpretation

To avoid errors of observation and errors of interpretation an observer can fortify himself in the following ways.

1. Develop an attitude of mind by which you deliberately try to prove your interpretation wrong. Be critical of your own interpretation.
2. Recognize, analyze and check on the assumptions you made in your interpretation.
3. Determine whether the observed behavior is actual evidence of the purpose of the observation, or partial evidence or indirect evidence or cannot really be considered as evidence.
4. Before drawing conclusions from a single bit of evidence, make further observations to determine how wide-spread the behavior is.

5. Examine your observation to determine whether it is an observation of a certain aspect of the behavior when the interpretation included the whole behavior.
6. In the observation of a result or product of behavior determine criteria to use in judging and judge the behavior in terms of each criterion.
7. Recognize that many kinds of behavior are on a continuum, shading from one end of the scale to another and are not on an all-or-none basis.
8. Consider what other causes could have been responsible for the behavior and check on these.
9. Recognize your individual subjective bias and take account of it in your interpretation.
10. Check through further observations as to whether the behavior was due simply to courtesy, to make an impression or was forced upon the person. Make allowances for or discount these things in your interpretation of behavior under such conditions.
11. Check further to determine if the result of behavior such as a product made or things claimed to have been done by the person were really done by the person and not by someone else.
12. Finally, avoid jumping to conclusions, but if you must act (and that you must do many times) before all the evidence is in, act upon the best evidence available depending upon the seriousness of the consequences of your actions.

